

Frequently Asked Questions (FAQ's) for BAA 06-007
“Navigation in a GPS-denied environment”

1. Can the problem be solved in more than 2 Phases as outlined in the BAA? We are considering a 3 Phase approach due to the research and development we feel is required to solve the problem.
A: This is acceptable as long as your phases align with the tasks, base contract/option, and funding guidelines presented in the BAA solicitation (paragraph 6.2). (ie. The base contract would include the Phase 1 effort. The Option would include the Phase 2 and 3 effort.)
2. Where is the demonstration going to take place? We are curious about this for travel/cost estimating purposes.
A: To Be Determined (within the continental United States).
3. Who is the ultimate customer for such a system being considered?
A: Marine Corps Systems Command
4. What is the area of coverage in which the clique operates?
A: One kilometer radius
5. Are there any requirements on the relays being away from the clique? How far have to be away from the clique?
A: Distance is within the offeror's design space, within the criteria identified in the BAA solicitation (under the Section entitled “Desired Capabilities,” paragraph 11).
6. Will there be any kind of GPS availability at all to the relays?
A: The intent is to operate in a GPS-denied environment during the eight-hour operational period, presumably after having determined absolute position through some method.
7. Is the definition of 100m underground mean that it's directly below 100m?
A: No. 100m linear distance into a cave, or similar environment.
8. Is there any restriction on frequency being offered as a solution?
A: None foreseen at this point.
9. What is the anticipated standard military radio interface being considered for this project?
A: Ethernet.

10. Does the 1kg weight requirement exclude the relays as well?

A: 1 kg per unit, handheld or relay.

11. Is this BAA fully funded for the two phases outlined?

A: No, ONR plans to fully fund the Phase 1 effort (Base Contract). Phase 2 will be an Option identified in the contract that may be exercised by the Government prior to the end of the basic period of performance. The exercise of Option/funding of Phase 2 decision will be made prior to the conclusion of the Phase 1 effort.

12. Was there an Industry Day for this BAA? If so, how can we get the materials presented on that Industry Day or learn of the list of attendance?

A: There was no industry day.

13. Is there a website that one can locate to find amendments or any further relevant details for this BAA?

A: The Solicitation, Amendments, and Frequently Asked Questions (FAQs) for this BAA will be posted at www.onr.navy.mil/02/baa/.

14. The program refers to GPS-denied navigation. Must the system to be delivered include a GPS receiver for times when GPS is available? Would an architecture in which the system interfaces to an external GPS already carried by the soldier (in which case that GPS receiver would not count against our weight/power budget) be acceptable?

A: Interface to existing GPS is acceptable. This being the case, it may be necessary to have access to P-code location information.

15. The program has 25m SEP after 8 hours of operation as a goal. Can you clarify what sort of motion the soldier will execute during that time? (e.g. how many km will he cover, will he remain within a given radius, how much time at rest etc.)

A: Assume human locomotion speeds with GPS denial during the entire period within a 10km radius and 50%/50% moving/static.

16. Can it be assumed that the soldier moves only by human locomotion? (i.e. he isn't driving a vehicle.)

A: Yes.

17. It is mentioned that the system should not burden the deployed forces. Are there any constraints on wearability / position of the system on the soldier?

A: No, reasonable human factors should be considered.

18. Are there any environmental requirements on the system?

A: Commercial specifications for prototypes.

19. It is mentioned that the system should provide for auxiliary data sources / beacons. Is it expected that we deliver this hardware as part of the contract? Are there any requirements associated with this component of the system?

A: If you require the beacons to meet project objectives, they are part of the system and should be delivered with it.

20. We are considering technology “x” as a possible solution. Would this be acceptable?

A: ONR can only evaluate ideas through the proposal submission process.

21. It appears there is preference towards small business in this solicitation. But, the solicitation also requires a small business plan. Is there a preference for small businesses? If so, we have one current small business protégé under the DOD Mentor Protégé program which we intend to utilize for our proposal response. Does the use of Small Disadvantaged Business satisfy any preference?

A: There is no preference for small business. However, in accordance with FAR 52.219-9, proposals that exceed \$500,000 that are submitted by other than small business concerns, are required to submit a Small Business Subcontracting Plan. This plan shall include subcontracting goals for the various preferences (Small Business, Small Disadvantaged Business, Woman-Owned Small Business, HUBZone, Veteran-Owned Small Business, and Service-Disabled Veteran-Owned Small Business).

22. Are there technical folks we could have a discussion with to discuss a few alternatives to determine the best approach to satisfy the ONR needs?

A: The Program Officer, John Moniz, can provide clarification, but he will not pre-evaluate ideas. His phone number is (703) 696-2492 and his e-mail is monizj@onr.navy.mil.

23. We would like to participate in this BAA but have already completed the majority of the tasks called for in the BAA phases one and two. Our system can be through beta testing and ready for production in less than a year. We are currently seeking funding to complete the development and conduct the beta testing. So the question is - Is there any way that we might work with the customer to obtain the funding to complete the system in lieu of participating in this BAA as it is written?

A: You must submit a proposal and it will be evaluated in accordance with the solicitation, like the other offerors' proposals.

24. Is the proposal supposed to cover Phase 1 and Phase 2 or only Phase 1?

A: Both Phase 1 and Phase 2.

25. Please confirm that foreign-owned, US-based firms are eligible for award.

A: Yes, foreign-owned, US-based firms are eligible for award.

26. I would like more information on the BAA to improve the way ground forces track, locate, and report their physical position to their immediate neighbors and to higher headquarters. I am a professor in the... When I learned land navigation in the Army, it was without the use of GPS units. In addition, I think my training in human-machine systems and industrial engineering equips me to conduct this research. However, I am trying to understand the details of the BAA and why basic land navigation techniques would not be sufficient. Any insights you can provide would be very much appreciated.

A: The premise behind this BAA is the automated sharing of position location information among members of small teams in GPS-denied environments. The purpose is the reduction of fratricide and the ability to maneuver in a coordinated fashion without explicit communications.

27. The primary question is if ONR is interested in a do-now and capable solution or is looking for a less fieldable approach that extends and explores the science of denied GPS navigation. Your thoughts appreciated.

A: ONR is looking for an approach that extends and explores the science of denied GPS navigation and produces a testable prototype by the end of Phase 2.

28. A second clarification would be what periods of full denial are desired for this effort (or to best characterize what could be achieved with submitted systems perhaps) and how key is the desire to power (specifically "recharge") from a BA-5590 battery (vs. AAs or other power).

A: The period of full denial of GPS is intended to be the full eight hours. We are not hung up on the particular battery, as long as the battery's size and especially the weight (~1 kg) goals are met. Ultimately though, the USMC might specify the battery they need to use in the future.

29. Desired Capability number 6 states "The system should provide for auxiliary data sources/beacons for location information." What types of beacons and sources do you want provided?

A: We have no preconceived notions of what beacons or auxiliary data sources you might use, but the intent of desired capability number 6 is that if sources are available, you may use them.

30. Is there a maximum number of relays that would be permitted? We understand that a coverage range of 10 km may be desired.

A: The total number of relays that we would like to see is three (3), regardless of the distance.